

ABSTRACT OF THE DISCLOSURE

A Pb-free solder is provided, which has a satisfactory low melting point and suppresses effectively the "copper leaching" phenomenon. The solder is difficult to be oxidized and has a high wettability. The solder consists essentially of (a) 1.0 to 4.0 wt% of Ag, (b) 0.4 to 1.3 wt% of Cu; (c) at least one of 0.02 to 0.06 wt% (or 0.02 to 0.04 wt%) of Ni and 0.02 to 0.06 wt% (or 0.02 to 0.05 wt%) of Fe; and (d) a balance of Sn. The solder has a copper dissolution rate of 0.20 or 0.15 μm or less. Preferably, the solder has a liquidus temperature of 240 °C or lower, in which a satisfactory low melting point is ensured. More preferably, the solder has a liquidus temperature of 230 °C or lower. It is preferred that the solder has a viscosity of 2.5 cP or lower.